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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,323	11/04/2003	Woo Hyuk Choi	10125/4119	5588
7590 06/23/2005 Brinks Hofer Gilson & Lione Post Office Box 10395 Chicago, IL 60610			EXAMINER DUDEK, JAMES A	
			ART UNIT 2871	PAPER NUMBER
DATE MAILED: 06/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b> 10/701,323	<b>Applicant(s)</b> CHOI, WOO HYUK	
	<b>Examiner</b> James A. Dudek	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 15-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 10-14 and 31-33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 27-30 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US Patent 6646694 (“694”).

Per claim 27, 694 teaches a method for repairing a signal line with an open in an LCD, the method comprising the steps of: connecting a first pixel electrode to a first side of the signal line; connecting a second pixel electrode to a second side of the signal line [see connect B-C]; and connecting the first pixel electrode to the second pixel electrode to establish a current path across the open [see connection D-E].

Per claim 28, 694 teaches the method of claim 27, where: the step of connecting the first pixel electrode comprises the step of connecting a first pixel electrode that overlaps the signal line; and the step of connecting the second pixel electrode comprises the step of connecting a second pixel electrode that overlaps the signal line [see region around 502 in figure three and paragraph bridging columns 3-4].

Per claim 29, 694 teaches the method of claim 27, where: the step of connecting the first pixel electrode comprises the step of laser connecting; and the step of connecting the second pixel electrode comprises the step of laser connecting [see column 4, second full paragraph].

Per claim 30, 694 teaches the method of claim 27, where the step of connecting the first electrode to the second pixel electrode comprises the step of connecting adjacent first and second pixel electrodes [see connection F-G].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants prior art figure 2b in view of 694.

Per claims 1 and 7, prior art figure 2b teaches a method for repairing an open gate line in an LCD, the LCD including a plurality of gate lines arranged on a substrate, a plurality of data lines that intersect with the gate lines to delineate a plurality of pixel areas, thin film switching transistors disposed proximate to gate line and data line intersections, and pixel electrodes disposed at the pixel areas, the method comprising the steps of: when a gate line includes a gate open at an intersection with a data line, connecting that gate line with a first pixel electrode overlapping a portion of the gate line. Figure 2b lacks connecting first and second adjacent pixel electrodes together across the gate open. However, 694 teaches connecting multiple adjacent pixel to bypass openings in data lines in order to repair a fracture in the signal path. Accordingly, it would have been obvious to one of ordinary skill at the time of invention to combine the connection of multiple pixels with prior art figure 2b.

Per claim 2, prior art figure 2b teaches the repair method of claim 1, where the portion of the gate line and the pixel electrode overlap to form a storage capacitor, and wherein the gate line and the pixel electrode are electrically insulated by an insulating layer interposed between the gate line and the pixel electrode [see figure 2b].

Per claim 3, prior art figure 2b teaches the repair method of claim 1, where the gate line includes a first side overlapped with the first pixel electrode and a second side overlapped with a second pixel electrode, and where the step of connecting the gate line comprises the step of laser welding the first side to the first pixel electrode and laser welding the second side to the second pixel electrode [see paragraph 19].

Art Unit: 2871

Per claim 4, prior art figure 2b in view of 694 teaches the repair method of claim 3, where the first pixel electrode and the second pixel electrode are adjacent, and where the data line is disposed between the first pixel electrode and the second pixel electrode.

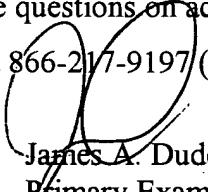
***Allowable Subject Matter***

Claims 5-6, 10-14 and 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 571-272-2290. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James A. Dudek  
Primary Examiner  
Art Unit 2871